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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,531	12/05/2003	Kazuo Sakamaki	Q78334	7327
23373	7590	06/02/2006	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			TALBOT, MICHAEL	
			ART UNIT	PAPER NUMBER
			3722	

DATE MAILED: 06/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/727,531	<b>Applicant(s)</b> SAKAMAKI ET AL.	
	<b>Examiner</b> Michael W. Talbot	<b>Art Unit</b> 3722	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15 and 16 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-8, 10-14 and 17-20 is/are rejected.
- 7) ☒ Claim(s) 5 and 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

The title of the invention was referenced as being amended on page 2 of the Applicant's amendment filed on 11 August 2005, however the amended title was inadvertently omitted. Please provide the desired title making sure the new title is clearly indicative of the invention to which the claims are directed.

#### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03 March 2006 has been entered.

#### ***Double Patenting***

2. Claim 18 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 6. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4,6-8,10,14 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yang et al. '691. Yang et al. '691 shows in Figures 1-4 a chuck assembly

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(100) having a rotary sleeve (5) provided on a body (1), a ring member (7) engaged with a two piece rotary nut (2) and jaws (3) engaged with the two piece rotary nut to provide forward and backward movement of the jaws for engagement of a tool insert. Yang et al. '691 further shows a convex and concave engaging means (5-1,5-2,7-1,7-2) located between the ring member and the rotary sleeve for securing the ring member and rotary sleeve together. Yang et al. '691 further shows the convex and concave engaging means comprising a concave groove portion (5-2) located on the circumferential surface of the rotary sleeve and a convex portion having an arm projection (7-1) and a foot/tab projection (7-2) located on the ring member, both at a predetermined angular position. Yang et al. '691 further shows a slotted portion (5-1) that guides the convex engaging means (7-1,7-2) via the arm projection (7-1) portion towards the concave groove portion (5-2) until the convex foot/tab projection (7-2) portion reaches and extends into the concave groove portion so as to be held in place (col. 5, lines 31-41). Yang et al. '691 further shows the concave engaging groove being U-shaped as defined by the walls and bottom of the groove forming the U-shaped configuration.

Regarding claim 1, Yang et al. '691 discloses the claimed invention except for "the slotted portion being positioned above the concave engaging means in a state where a tip end of the jaw points downwardly". It would have been obvious to one having ordinary skill in the art at the time the invention was made to assemble the slotted portion positioned above the concave engaging means, in lieu of below it for the purpose of connecting the two members together to prevent rotation relative to one another because it has been held that a mere reversal of essential working parts of a device without producing any new and unexpected results involves only routine skill in the art.

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yang et al. '691 in view of Owens et al. '983. Yang et al. '691 lacks the specific reference of the rotary sleeve

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being of a deformable material (i.e. plastic). Owens et al. '983 shows in Figure 1 a rotary sleeve (50) being a plastic member. In view of this teaching of Owens et al. '983, it would have been obvious to one skilled in the art to modify the rotary sleeve of Yang et al. '691 (with a silent material composition) to be made with a plastic material to provide a reduction in the chuck's overall weight, a less expensive material to manufacture and to increase the "ease of operation" due to the increase friction surface (col. 1, lines 15-27).

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yang et al. '691 in view of Sakamaki et al. '474. Yang et al. '691 lacks the concave engaging means extending through a wall of the rotary sleeve. Sakamaki et al. '474 shows in Figures 11-14 a rotary sleeve (9) having a concave engaging means extending through a wall (18) of the rotary sleeve (Fig. 12). In view of this teaching of Sakamaki et al. '474, it would have been obvious to one skilled in the art to modify the rotary sleeve of Yang et al. '691 to include a concave engaging means that extends through the wall of the rotary sleeve to allow for a larger (i.e. longer) convex projection which increases its versatility and increases the contact area between the members which ultimately improves the connection forces and rotary drive there between.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yang et al. '691. Yang et al. '691 does not disclose expressly that the slotted portion includes a tapered surface. Instead, Yang et al. '691 is silent as to the configuration of the slotted portion (5-1). At the time of the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to select a tapered surface because Applicant has not disclosed that the tapered surface provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected the slotted portion structure of Yang et al. '691, and Applicant's tapered slotted portion structure to perform equally well with either the undisclosed tapered surface taught by Yang et al. '691 or the claimed

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tapered surface because both structures would perform an equivalent guiding means for the projection to be guided into the concave groove portion.

Furthermore, Applicant does not provide any criticality or unexpected results for the tapered slotted portion surface as recited in claim 13.

***Response to Arguments***

8. Applicant's arguments filed 03 March 2006 and 03 May 2006 have been fully considered but they are not persuasive.

9. Claim 18 is merely a duplicate of claim 6. Both claims depend from claim 1. Therefore, the rejection of claim 6 is equally appropriate for the rejection of claim 18 as noted above.

Claim 19 is a combination of claims 1 and 6 as originally filed on 11 August 05. These claims were rejected under Final Office Action dated 03 November 2005. Therefore, the rejection of claims 1 and 6 under Final Office Action dated 03 November 2005 is equally appropriate for the rejection of claim 19 as noted above.

Claim 20 is merely a duplicate of claim 1 as originally filed on 11 August 05. This claim was rejected under Final Office Action dated 03 November 2005. Therefore, the rejection of claim 1 under Final Office Action dated 03 November 2005 is equally appropriate for the rejection of claim 20 as noted above.

10. Examiner respectfully disagrees with Applicant's arguments that Examiner is relying solely upon "design choice" to reject claim 13. Applicant does not provide any criticality or unexpected results for the tapered slotted portion surface as recited in claim 13 and furthermore, the non-disclosed shape (for argument purposes, a non-tapered shape) as taught by Yang et al. '691 would perform the equivalent guiding means for the projection to be guided into the concave groove portion regardless as to how well it may perform.

***Allowable Subject Matter***

11. Claims 5 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Claims 15 and 16 are allowed (Claim 15 originally indicated as allowable subject matter in Final Office Action dated 03 November 2005).

Claim 15 is the independent claim.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to anticipate or make obvious, solely or in combination, the claimed construction of longitudinal grooves (9b) contiguous with both ends of the circumferential groove (9a).

Yang et al. '691 is the closest art of record.

Yang et al. '691 lacks the longitudinal grooves contiguous with both ends of the circumferential groove.

***Conclusion***

13. Any inquiry concerning the content of this communication from the examiner should be directed to Michael W. Talbot, whose telephone number is 571-272-4481. The examiner's office hours are typically 8:30am until 5:00pm, Monday through Friday. The examiner's supervisor, Mrs. Monica S. Carter, may be reached at 571-272-4475.

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14. In order to reduce pendency and avoid potential delays, group 3720 is encouraging FAXing of responses to Office Actions directly into the Group at FAX number 571-273-8300. This practice may be used for filling papers not requiring a fee. It may also be used for filing papers, which require a fee, by applicants who authorize charges to a USPTO deposit account. Please identify Examiner Michael W. Talbot of Art Unit 3722 at the top of your cover sheet.



MWT  
Examiner  
17 May 2006



MONICA CARTER  
SUPERVISORY PATENT EXAMINER